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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,718	12/28/2001	Thomas P. Sawyers	1662-55400 JMH (P01-3884)	2121
22879	7590	02/23/2005	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			FLEMING, FRITZ M	
			ART UNIT	PAPER NUMBER
			2182	

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/034,718

Applicant(s)

SAWYERS ET AL.

Examiner

Fritz M Fleming

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 19-22 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,7,11 and 14 is/are allowed.
- 6) ☒ Claim(s) 1-3,5,6,8-10,12,13,15-18 and 23-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


FRITZ FLEMING
PRIMARY EXAMINER
GROUP 2100

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings were received on 11/22/2004. These drawings are approved.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is inconsistent usage of "to an approximately constant level" and "said approximately constant power level", creating an antecedent basis problem.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5,6,8-10,12,13,23-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Narita et al. (Narita).

Anticipation is provided by the following:

- Claim 1 shows a computer system in the form of an electronic device 30, which is a battery operable computer (col. 3, lines 45-55). Being such, a CPU has to positively be there, as a CPU is inherent to having a computer. A battery

subsystem is shown at 40. An AC adapter is shown at 20, coupled to the computer and its CPU at 30 and the battery at 40, with regulation in Figure 3, such that the voltage is regulated at Region A (Equality 5) until a current threshold is reached at Regions E and B (Equalities 3 and 1), representing a current threshold above which power is regulated to an approximate constant value. See column 8, line 54+ which discusses Region A as being constant voltage control, Region B as being nearly constant power control, Region C as being constant current control, Region D as being constant current control, and Region E as being nearly constant power control. The term "nearly" anticipates the claimed "approximately".

- Claim 2 is shown by the Figure 3 graph showing that the output voltage $V(O)$ is reduced for increasing Output Current $I(O)$ in Regions E and B.
- Claim 3 is referenced to Figure 1 and the transformer 106, in which the feedback output section 400 operates the photocoupler 130 to provide a feedback signal to the transformer via PWM 108 so as to operate in the constant power (i.e. reduced output voltage per Figure 3) and column 5, lines 33-45 and column 6, lines 16-27, which specifically mention a predetermined output current value triggering the nearly constant power output. A voltage feedback circuit is seen at 400.
- Claim 5 is shown by the discussion of claim 1, with means contained within 400 and 108 to provide power regulation when a current value is above a value for the AC and voltage regulation for the AC adaptor 20.

- Claim 6 is shown in Figure 3.
- Claim 8 is shown by the AC adaptor 20 of Figure 1 and the output voltage regulator and power regulator of 400.
- Claim 9 is shown by Figure 3.
- Claim 10 is discussed per the claim 3 details.
- Claim 12 is shown by the AC adaptor 20 of Figure 1 with the means in 400.
- Claim 13 is in 400 with operations shown in Figure 3.
- Regarding the amended limitations of claims 1,5,8,12, it is to be noted that the Narita sets forth thresholds at equality 3 and 1, for the regions E and B, respectively. In these areas, and at all times in which the regulation is in regions E and B, the power is regulated to a nearly constant level. Regions B and E are described as being “a nearly constant power output mode”, and these are associated with a threshold shown in Figure 3. Simply claiming “at all times” is met in the case that the device of Narita operates in regions B and/or E without going into regions A,C,D. A limitation reading “at all times” does not preclude the existence of other regions, just limits the operation to particular regions. Thus a limitation “at all times” is relative, as it provides no real limits as to how long this time is, and thus Narita operating in regions B/E for any time, is “all times” as far as the claim is concerned. As long as Narita is operating in regions B and/or E, it is operating “at all times” and does not need to go into the other regions. Thus anticipation is proper when Narita operates in regions B/E without going into the other regions.

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- Regarding the added claims 23-26, regions B and E show the current increasing while the voltage is decreasing, thereby meeting the “inversely proportional”.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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6. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narita in view of the admitted prior art.

Narita lacks the throttling back of a load in response to a detected reduction in voltage, noting that a reduction of output voltage is detected in normal operations in Regions B-E by normal operations in Figure 3.

The admitted prior art sets forth a current sense at 18, which detects an area in which the adapter cannot keep up with the demands, and thus causes a throttling back of the battery charging.

Thus it would have been obvious to one having ordinary skill in the art at the time that the invention was made to modify Narita per the teachings of the admitted prior art, so as to allow for a throttling back of battery charging during times in which the load on the AC adaptor increases to the point in which power consumption is high. Clearly, the admitted prior art applied to Narita teaches that throttling should occur in Regions B-E, as these regions are where the battery is charged under load conditions. Thus one would have been motivated to include the teachings of the admitted prior art (i.e. the battery charging throttling) for the purpose of improving operations of Narita by throttling the battery charging in regions of constant power regulation, so as to avoid exceeding the output capability of the AC adaptor. Note a computer has many loads, as required by the claim preamble.

7. Claims 17,18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narita in view of the admitted prior art as applied to claims 15,16 above, and further in view of Inoue.

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Narita in view of the admitted prior art lack the throttling to be a reduction in processor frequency or display brightness.

Inoue teaches a power management scheme that involves either the reduction of LCD brightness or CPU frequency in order to not exceed the capacity of the battery (see columns 7 and 8).

Therefore it would have been obvious to one having ordinary skill in the art at the time that the invention was made to modify Narita by the teachings of Inoue for the purpose of not exceeding the capacity of the battery by throttling the CPU frequency or brightness of the LCD. The motivation to do so is again to prevent exceeding the power capacity of the AC adaptor, so in regions B-E where constant power is regulated in parts thereof, the capacity of the adaptor is being approached, and load throttling of the CPU frequency or LCD brightness will ensure that the capacity is not exceeded.

Allowable Subject Matter

8. Claims 4,7,11,14 are allowed.

9. The following is a statement of reasons for the indication of allowable subject matter: Applicants have provided convincing argument regarding the rejection, which is hereby vacated.

Response to Arguments

10. Applicant's arguments filed 11/22/2004 have been fully considered but they are not persuasive. It is to be noted that "at all times" does not preclude the regions A,D,C, but just that the device does not operate in such. The limitation is one of a temporal nature, not a structural nature, and thus Narita operating only in regions B/E still

anticipates. For example, once Narita enters regions B/E, and stays in there for a period of time (noting "at all times" does not specify a period of time), then it is operating at a constant power level for all times that it is in B/E. The nature of the claim language does not provide a structural basis by which to exclude the other regions. It is also to be noted that applicants incorrectly argued claim 15, as such was on the basis of 103 and not 102. Additionally, claim 15 only requires reduced voltage, without a constant power, which thus allows for regions D and C.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz M Fleming whose telephone number is 703-308-1483. The examiner can normally be reached on M-F, 0600-1500.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 703-308-3301. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Fritz M. Fleming
Primary Examiner
Art Unit 2182

fmf